Notice of Allowability	Application No.	Applicant(s)	
	10/054,597	LAUER, GREGORY S.	
	Examiner	Art Unit	
	Bradley B. Bayat	3621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *interview conducted on 4/23/2007*.

2. ☒ The allowed claim(s) is/are *1-19*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given by email on May 11, 2007.

The application has been amended as follows:

Claim Amendments

Claim 1 (currently amended): A method for generating node configuration data, comprising the steps of: forming a service level agreement template that integrates cloud and pipe service models into a single provisioning model by describing network services in terms of what is experienced by an end user's edge devices and by determining a number of transit QoS constraints, including that network devices supporting the service level agreement in a core network must be bi-connected, respectively, said service level agreement template including a cloud SLA GUI template, cloud SLA defaults, a VPN GUI template, and VPN constraints, said forming including with a computer system, the computer generated steps of:

displaying a SLA GUI;

displaying a VPN GUI;

entering required SLA information via the SLA GUI thereby generating cloud SLA required data;

entering required VPN information via the VPN GUI;

computing SLA defaults;

computing VPN topology from the VPN information;

computing transit QoS from the VPN topology and the cloud SLA to produce a service level specification that includes a detailed description of the traffic classes, peak and committed rates to implement the VPN;

computing SLX parameters from the service level specification;

determining a plurality of traffic classes[[,]];

defining a traffic class hierarchy from the plurality of traffic classes based on each class' own service properties, including bandwidth percentage and priority of service;

determining at least one required input for a first graphical user interface for each traffic class~~, and~~;

determining at least one required input for a second graphical user interface;

obtaining service level agreement constraints for at least one service level agreement, said obtaining including:

generating said first graphical user interface[[,]];

obtaining, through said first graphical user interface, indication of a selected one of said plurality of traffic classes[[,]];

obtaining, through said first graphical user interface, at least one value associated with said at least one required input for said first graphical user interface[[,]];

generating said second graphical user interface~~, and~~;

obtaining, through said second graphical user interface, indication of a selected second of said plurality of traffic classes[[,]];

obtaining, through said second graphical user interface, at least one value associated with said at least one required input for said second graphical user interface; and

generating, responsive to said selected one of said plurality of traffic classes, said at least one value associated with said at least one required input for said first graphical user interface, and said at least one value associated with said at least one required input for said second graphical user interface, node configuration data, said node configuration data describing how at least one resource in at least one networking device is to be configured to support at least one network service described by said selected one of said plurality of traffic classes, said at least one value associated with said at least one required input for said first graphical user interface.

Claim 2 (original): The method of claim 1, further comprising:

determining at least one default equation associated with said first graphical user interface;

applying said default equation to said at least one value associated with said at least one required input for said first graphical user interface to generate a first set of outputs; and

wherein said generating said node configuration data is further responsive to said first set of outputs.

Claim 3 (previously presented): The method of claim 2, said forming said service level agreement template further comprising:

determining at least one optional input for said first graphical user interface;

determining at least one format of at least one screen display in said first graphical user interface, wherein said at least one screen format includes a first field associated with said required input for said first graphical user interface and a second field associated with said optional input for said second graphical user interface; and

wherein said generating said first graphical user interface includes displaying said at least one screen display.

Claim 4 (previously presented): The method of claim 3, wherein said at least one default equation comprises program code.

Claim 5 (previously presented): The method of claim 4, wherein said determining said at least one required input for said second graphical user interface further comprises determining required information describing at least one resource associated with at least one networking device, wherein said required information associated with said at least one resource describes, at least in part, a virtual private network.

Claim 6 (original): The method of claim 5, wherein said required information describing said at least one resource comprises a virtual network identifier.

Claim 7 (previously presented): The method of claim 6, wherein said required information describing said at least one resource comprises an indication of whether connectivity is required between said at least one networking device and a second networking device.

Claim 8 (previously presented): The method of claim 7, wherein said forming said service level agreement template further includes:

determining at least one optional input for said second graphical user interface,

determining at least one format of at least one screen display in said second graphical user interface, wherein said at least one screen format includes a first field associated with said required input for said second graphical user interface and a second field associated with said at least one optional input for said second graphical user interface; and

wherein said generating said second graphical user interface includes displaying said at least one screen display in said second graphical user interface responsive to said at least one format.

Claim 9 (previously presented): The method of claim 8, wherein said forming a service level agreement template comprises receiving at least one input through a third graphical user interface.

Claim 10 (currently amended): A system for generating node configuration data, comprising:

at least one memory for storing program code;

at least one processor, communicably coupled to said memory, said at least one processor operable to execute program code stored in said memory;

program code, stored in said memory, for forming a service level agreement template that integrates cloud and pipe service models into a single provisioning model by describing network services in terms of what is experienced by an end user's edge devices and by determining a number of transit QoS constraints, including that network devices supporting the service level agreement in a core network must be bi-connected, respectively, said service level agreement template including a cloud SLA GUI template, cloud SLA defaults, a VPN GUI template, and VPN constraints, said program code for forming said service level agreement template including

program code for displaying a SLA GUI;

program code for displaying a VPN GUI;

program code for entering required SLA information via the SLA GUI thereby generating cloud SLA required data;

program code for entering required VPN information via the VPN GUI;

program code for computing SLA defaults;

program code for computing VPN topology from the VPN information;

program code for computing transit QoS from the VPN topology and the cloud SLA to produce a service level specification that includes a detailed description of the traffic classes, peak and committed rates to implement the VPN;

program code for computing SLX parameters from the service level specification;

program code for determining a plurality of traffic classes,

program code for defining a traffic class hierarchy from the plurality of traffic classes based on each class' own service properties, including bandwidth percentage and priority of service;

program code for determining at least one required input for a first graphical user interface, and

program code for determining at least one required input for a second graphical user interface;

program code, stored in said memory, for obtaining service level agreement constraints for at least one service level agreement, said program code for obtaining including said service level agreement constraints including

program code for generating said first graphical user interface,

program code for obtaining, through said first graphical user interface, indication of a selected one of said plurality of traffic classes,

program code for obtaining, through said first graphical user interface, at least one value associated with said at least one required input for said first graphical user interface,

program code for generating said second graphical user interface, and

program code for obtaining, through said second graphical user interface, indication of a selected second of said plurality of traffic classes,

program code for obtaining, through said second graphical user interface, at least one value associated with said at least one required input for said second graphical user interface; and

program code, stored in said memory, for generating, responsive to said selected one of said plurality of traffic classes, said at least one value associated with said at least one required input for said first graphical user interface, and said at least one value associated with said at least one required input for said second graphical user interface, node configuration data, said node configuration data describing how at least one resource in at least one networking device is to be configured to support at least one network service described by said selected one of said plurality of traffic classes, said at least one value associated with said at least one required input for said first graphical user interface.

Claim 11 (original): The system of claim 10, further comprising:

program code for determining at least one default equation associated with said first graphical user interface;

program code for applying said default equation to said at least one value associated with said at least one required input for said first graphical user interface to generate a first set of outputs; and

wherein said program code for generating said node configuration data is further responsive to said first set of outputs.

Claim 12 (previously presented): The system of claim 11, said program code for forming said service level agreement template further comprising:

program code for determining at least one optional input for said first graphical user interface;

program code for determining at least one format of at least one screen display in said first graphical user interface, wherein said at least one screen format includes a first field associated with said required input for said first graphical user interface and a second field associated with said optional input for said second graphical user interface; and

wherein said program code for generating said first graphical user interface includes program code for displaying said at least one screen display.

Claim 13 (previously presented): The system of claim 12, wherein said at least one default equation comprises program code.

Claim 14 (previously presented): The system of claim 13, wherein said program code for determining said at least one required input for said second graphical user interface further

comprises program code for determining required information describing at least one resource associated with at least one networking device, wherein said required information associated with said at least one resource describes, at least in part, a virtual private network.

Claim 15 (original): The system of claim 14, wherein said required information describing said at least one resource comprises a virtual network identifier.

Claim 16 (previously presented): The system of claim 15, wherein said required information describing said at least one resource comprises an indication of whether connectivity is required between said at least one networking device and a second networking device.

Claim 17 (previously presented): The system of claim 16, said program code for forming said service level agreement template further comprising:

program code for determining at least one optional input for said second graphical user interface;

program code for determining at least one format of at least one screen display in said second graphical user interface, wherein said at least one screen format includes a first field associated with said required input for said second graphical user interface and a second field associated with said at least one optional input for said second graphical user interface; and

wherein said program code for generating said second graphical user interface includes program code for displaying said at least one screen display in said second graphical user interface responsive to said at least one format.

Claim 18 (previously presented): The system of claim 17, wherein said program code for forming a service level agreement template comprises program code for receiving at least one input through a third graphical user interface.

Claim 19 (currently amended): A system for generating node configuration data, comprising:

means for forming a service level agreement template that integrates cloud and pipe service models into a single provisioning model by describing network services in terms of what is experienced by an end user's edge devices and by determining a number of transit QoS constraints, including that network devices supporting the service level agreement in a core network must be bi-connected, respectively, said service level agreement template including a cloud SLA GUI template, cloud SLA defaults, a VPN GUI template, and VPN constraints, said program code for forming said service level agreement template including

means for displaying a SLA GUI;

means for displaying a VPN GUI;

means for entering required SLA information via the SLA GUI thereby generating cloud SLA required data;

means for entering required VPN information via the VPN GUI;

means for computing SLA defaults;

means for computing VPN topology from the VPN information;

means for computing transit QoS from the VPN topology and the cloud SLA to produce a service level specification that includes a detailed description of the traffic classes, peak and committed rates to implement the VPN;

means for computing SLX parameters from the service level specification;

means for determining a plurality of traffic classes,

means for defining a traffic class hierarchy from the plurality of traffic classes based on each class' own service properties, including bandwidth percentage and priority of service;

means for determining at least one required input for a first graphical user interface, and

means for determining at least one required input for a second graphical user interface;

means for obtaining service level agreement constraints for at least one service level agreement, said means for obtaining including said service level agreement constraints including

means for generating said first graphical user interface,

means for obtaining, through said first graphical user interface, indication of a selected one of said plurality of traffic classes,

means for obtaining, through said first graphical user interface, at least one value associated with said at least one required input for said first graphical user interface,

means for generating said second graphical user interface, and

means for obtaining, through said second graphical user interface, indication of a selected second of said plurality of traffic classes,

means for obtaining, through said second graphical user interface, at least one value associated with said at least one required input for said second graphical user interface; and

means for generating, responsive to said selected one of said plurality of traffic classes, said at least one value associated with said at least one required input for said first graphical user interface, and said at least one value associated with said at least one required input for said second graphical user interface, node configuration data, said node configuration data describing how at least one resource in at least one networking device is to be configured to support at least one network service described by said selected one of said plurality of traffic classes, said at least one value associated with said at least one required input for said first graphical user interface.

Allowable Subject Matter

Claims 1-19 are allowed.

The following is an examiner's statement of reasons for allowance: The primary reference El-Fekih et al. (U.S. 2002/0039352 A1)("El-Fekih") discloses as previously discussed. El-Fekih however does not teach at least forming a service-level agreement template that integrates cloud and pipe service models into a single provisioning model, said service-level agreement template including a cloud SLA GUI template, cloud SLA defaults, a VPN GUI template, and VPN constraints, computing transit QoS from the VPN topology and the cloud SLA to produce a service level specification that includes a detailed description of the traffic classes, peak and committed rates to implement the VPN, and defining a traffic class hierarchy

from the plurality of traffic classes based on each class' own service properties, including bandwidth percentage and priority of service. Moreover, the missing claimed elements from El-Fekih are not found in a reasonable number of reference(s). Yet even if the missing claimed elements were found in a reasonable number of references, a person of ordinary skill in the art at the time the invention was made would *not* have been motivated to include these missing elements in an embodiment in the El-Fekih disclosure because: the integration of service models is nowhere apparent in the El-Fekih reference thereby recognizing such an advantage as disclosed by applicant's disclosure.

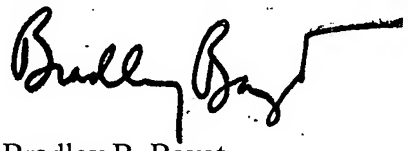
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bradley B. Bayat whose telephone number is 571-272-6704. The examiner can normally be reached on Tuesday-Friday 8 a.m.-6:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Fischer can be reached on 571-272-6779. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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